Date July 12, 2005 Page 2

Amendments to the Specification:

On Page 1, before the first paragraph, please add the following subtitle:

BACKGROUND OF THE INVENTION

On Page 5, before the last paragraph, please add the following subtitle:

SUMMARY OF THE INVENTION

On Page 6, please rewrite the paragraph starting on Line 3 as follows:

This object is achieved by the device according to claim 1, for cultivating cells in liquid columns on a millilitre scale, having a container for receiving a liquid culture suspension of the cells, an agitation system for mixing the culture suspension in the container about a mixing axis, characterised in that at least one of the container and the agitation system are configured in such a manner that the flow velocity is modified at least one of locally and temporally along a streamline or flow line about the agitation axis; the agitation system according to claim 21, having a basic body which, in operation, has an upper side and an underside, characterised in that, in the basic body, at least one first throughchannel is disposed, the first opening of which is situated at least partially on the underside of the basic body and the second opening of which is situated on at least one of the upper side and laterally on the basic body arrangement according to claim 31 for parallel, automated cultivation or cells in liquid columns on a millilitre scale, characterised by at least one device or agitation system according to one of the to the device described supra and also the method according to claim 49 for cultivating cells in liquid columns on a millilitre scale, at least one cell suspension being moved in a container in such a manner that the cell suspension forms an annular flow, characterised in that the flow velocity of the annular flow is modified at least one of locally and temporally along a streamline. Advantageous

Date July 12, 2005 Page 3

developments of the respective device, arrangement, agitation system or of the method according to the invention are given in the respective dependent claims hereinafter.

On Page 11, before the paragraph starting on Line 9, add the following subtitle:

BRIEF DESCRIPTION OF THE DRAWINGS

On Page 13, before Line 1, please add the following subtitle:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT